IN THE SPECIFICATION:

Please see the changes made in the response below. A substitute specification is not included with this response.

Please replace paragraph [0056] with the following:

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[0056] Figure 1 illustrates an overview of the preferred embodiment of the Power Management Architecture ("architecture") 100, which contains one or more IED's 102, 103, 104, 105, 106, 107, 108, 109. The IED's 102-109 are connected to an electrical power distribution system 101, or portion thereof, to measure, monitor and control quality, distribution and consumption of electric power from the system 101, or portion thereof. The power distribution system is typically owned by either a utility/supplier or consumer of electric power however some components may be owned and/or leased from third parties. The IED's 102-109 are further interconnected with each other and back end servers 121, 122, 123, 124 via a network 110 to implement a Power Management Application ("application") ~~111~~ 211 (not shown). In the preferred embodiment, the network 110 is the Internet. Alternatively, the network 110 can be a private or public intranet, an extranet or combinations thereof, or any network utilizing the Transport Control Protocol/Internet Protocol ("TCP/IP") network protocol suite to enable communications, including IP tunneling protocols such as those which allow virtual private networks coupling multiple intranets or extranets together via the Internet. The network 110 may also include portions or sub-networks which use wireless technology to enable communications, such as RF, cellular or Bluetooth technologies. The network 110 preferably supports application protocols such as telnet, FTP, POP3, SMTP, NNTP, MIME, HTTP, SMTP, SNNP, IMAP, proprietary protocols or other network application protocols as are known in the art as well as transport protocols SLIP, PPP, TCP/IP and other transport protocols known in the art.

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Please replace paragraph [0058] with the following:

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[0058] In one preferred embodiment the architecture 100 comprises IED's 102-109 connected via a network 110 and back end servers 120, 121, 122, 123, 124 which further comprise software which utilizes protocol stacks to communicate. IED's 102-109 can be owned and operated by utilities/suppliers 130, 131, consumers 132 133 or third parties 134 or combinations thereof. Back end servers 120 121 122 123 124 can be owned by utilities/suppliers 130, 131, consumers 132, 133, third parties 134 or combinations thereof. For example, an IED 102-109 is operable to communicate directly over the network with the consumer back-end server 120, 121, another IED 102-09~~19~~ or a utility back end server 123,124. In another example, a utility back end server 123, 124 is operable to connect and communicate directly with customer back end servers 120, 121. Further explanation and examples on the types of data and communication between IED's 102-109 are given in more detail below.

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Please replace paragraph [0072] with the following:

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[0072] In operation the IED monitors the power distribution system ~~301~~300 for billing events such as, kWh or kvA pulses. In one embodiment the IED may store billing events and transport the data to the power management application components operating on a back end server either upon request or upon pre-determined time intervals. Alternately the IED may transport billing event data in real time to the back end server. Data may be filtered through the either the Back End Server's or IED's power management components or any combination or variation thereof, before being entered into the Billing/Revenue Management component where billing, revenue, cost and usage tracking are computed into revised data. The Billing/Revenue Management components either stores the computations for future retrieval or pushes the revised data to the appropriate party, such as the consumer or provider of the electric power system. Data can be retrieved upon command or sent or requested upon a scheduled time.

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Please replace paragraph [0083] with the following:

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[0083] For example, referring now to Figure 7, an IED 711 is connected to a network 710 and measures the reliability of the power distribution system 701 which supplies power to loads 722 724 within a customer site 705 connected to a power utility 700. The customer also provides a generator 726 which supplies power to the loads 722 724 at various times. The customer measures the power reliability of the system for the load 722 724 using the associated IED 712 714 and considers it unreliable. One IED's 714 power reliability component polls the other IED's 711 712 716 and determines the unreliable power source is coming from the generator 726. From this the customer can decide to shut off the power supply from the generator 726 in order to improve the power reliability of the system.

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Please replace paragraph [0085] with the following:

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[0085] Peer to peer communications between IED's and between back end servers are supported by the peer to peer management component 257. In the preferred embodiment peer to peer communications are utilized to transport or compile data from multiple IED's. For example, as shown in Figure 8, an IED 800 is connected to a network 810 within a customer network 812. Multiple loads 806 808 draw power from a power utility's 803 power distribution line 801 and each load is monitored by an IED 802 804. An IED 800 polls load and billing data from all other IED's on the network on the customer site 802 804. Upon request, the IED 800 then transmits the load and billing data to the customer's billing server 814. In the preferred embodiment, the IED 800 communicates the load and billing data in a format which allows software programs inside the customer billing server 814 to receive the data directly without translation or reformatting.

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Please replace paragraph [0112] with the following:

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[0112] In a system where multiple transformations are to be performed on a given piece of data, implementation of the transformative functions may vary. Figure 13 shows a block diagram of exemplary transformations chained together such that the output of one transformation is the input to the next transformation. In this example, referring to the tree/traversal based generation technique above, as each node of the tree structure is transformed, the transformed data is passed to the next transformation block and the current transformation block is free to receive and transform the next node in the tree. This continues until all the transformation blocks have executed on all the original input data (or the transformed version of the input data). The original document is input at the data source 1310. Next a transformation by incremental data processing 1320 is implemented on the data. Additional transformations by incremental data processing 1330 can optionally be implemented before the data is finally output into data sink 1340. By pipelining the transformation blocks such that the processing of each transformation stage may commence as soon as enough data is received from the source or prior stage, incremental processing, i.e. incremental generation, may be achieved, as described above. Note that the flow control structure of Figure 14, described below in relation to the incremental reception and consumption of data messages, may be used with the transformation pipeline of Figure 13. As data is supplied from the source, the flow control system of Figure 14 determines when enough data to begin processing has been received, that data is then passed on to the first transformation block. Similar flow control may be placed between the stages of the pipeline so as to ensure that adequate data is supplied to each transformation stage.

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